



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,807	10/30/2003	Tzong-Liang Tsai	TSAI112	6883

1444 7590 04/19/2005

BROWDY AND NEIMARK, P.L.L.C.
624 NINTH STREET, NW
SUITE 300
WASHINGTON, DC 20001-5303

EXAMINER

PRENTY, MARK V

ART UNIT	PAPER NUMBER
----------	--------------

2822

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/695,807	Applicant(s) TSAI ET AL.	
	Examiner MARK V. PRENTY	Art Unit 2822	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 and 10 is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2822

This Office Action is in response to the amendment filed on April 12, 2005.

Claims 1-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Wu et al. (United States Patent 6,445,007 – hereafter Wu – already of record).

With respect to independent claim 1, Wu discloses a light emitting diode device (see the entire patent, including the Fig. 5 disclosure), comprising: a substrate 11 deposited on a bottom of the light emitting diode device; a semiconductor layer 12-14 formed above the substrate including an n-type semiconductor layer 12, an active layer 13 and a p-type semiconductor layer 14, wherein the active layer is formed between the n-type semiconductor layer and the p-type semiconductor layer; and a patterned transparent conductive layer 15 is formed on the p-type semiconductor layer and filled with a light-transmission conductive layer 19 so as to effectively increase transmission of the light emitting diode device; wherein the patterned transparent conductive layer 15 is made of at least one metal selected from the group consisting of Ni, Au, Cr, Ir, Pt, Ag, Ru and Be (see column 4, lines 1-3).

Claim 1 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Wu.

With respect to dependent claim 2, Wu's substrate 11 is a sapphire substrate (see column 3, lines 42-44).

Claim 2 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Wu.

With respect to dependent claim 3, Wu's n-type semiconductor 12 is an N-GaN layer (see column 3, line 42).

Claim 3 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Wu.

Art Unit: 2822

With respect to dependent claim 4, Wu's p-type semiconductor 14 is a P-GaN layer (see column 3, lines 45-46).

Claim 4 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Wu.

With respect to dependent claim 5, Wu's active layer is an InGaN/GaN multiple quantum well structure (see column 3, lines 51-54).

Claim 5 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Wu.

With respect to dependent claim 6, Wu's light-transmission conductive layer 19 is a metal-oxide layer (see column 4, lines 25-36).

Claim 6 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Wu.

With respect to dependent claim 8, Wu's light-transmission conductive layer 19 with high transparency is an oxide layer selected from the group consisting of indium tin oxide (ITO), indium oxide, tin oxide, indium lead oxide, lead oxide, antimony tin oxide, antimony oxide, antimony zinc oxide, cadmium tin oxide, cadmium oxide, zinc oxide, and magnesium oxide (see column 4, lines 25-36).

Claim 8 is thus rejected under 35 U.S.C. 102(b) as being anticipated by Wu.

Claims 9 and 10 are allowable over the prior art of record.

The applicant's argument with respect to amended independent claim 1 (see the response at the paragraph bridging pages 15-16) is incorrect.

As a preliminary matter, independent claim 1 has been amended to include the limitation of originally filed (and now canceled) dependent claim 7, which, like originally filed independent claim 1, was rejected under 35 U.S.C. 102(b) as being anticipated by Wu. The examiner relied upon Wu's column 4, lines 1-3, disclosure to reject originally

filed dependent claim 7, and continues to rely on Wu's column 4, lines 1-3, disclosure to reject amended independent claim 1 (see above).

In any event, the applicant's argument is incorrect because claim 1's limitation: "wherein the patterned transparent conductive layer is made of at least one metal selected from a group consisting of Ni, Au, Cr, Ir, Pt, Ag, Ru and Be," reads on Wu's column 4, lines 1-3, disclosure, which discloses that Wu's patterned transparent conductive layer 15 can be made of Ni (nickel) and Au (gold).

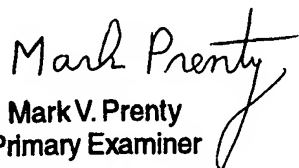
The applicant's argument with respect to dependent claim 8 (see the response at page 16, first full paragraph) is incorrect. Specifically, contrary to the applicant's argument, claim 8's oxide layer is not "made from any one of an entirely different group of oxides than that of Wu," because claim 8 recites zinc oxide and Wu discloses zinc oxide (see Wu at column 4, lines 25-36).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2822

Registered practitioners can telephone the examiner at (571) 272-1843. Any voicemail message left for the examiner must include the name and registration number of the registered practitioner calling, and the Application/Control (Serial) Number. Technology Center 2800's general telephone number is (571) 272-2800.


Mark V. Prenty
Primary Examiner